

Ethanol plant given green light by panel

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As part of a Los Angeles County government effort to help ease global warming and the high cost of gasoline, a county panel on Wednesday approved a plan to build the county's first ethanol plant near the Lancaster landfill. The \$30 million plant will be the first commercial facility in the nation to process biowaste - wood chips, grass cuttings and other organic waste - into ethanol, a gasoline additive that helps reduce air pollution and greenhouse gases and can be used as an alternative fuel. It also is the first of three that Irvine-based BlueFire Ethanol plans to build in Southern California.

"Right now, our internal plan for BlueFire Ethanol is we want to build 20 of these types of facilities nationwide over the next seven years, and that will get us to roughly 1 billion gallons a year of production," said Arnold Klann, chief executive officer and president.

Regional Planning Commissioner Esther L. Valadez said she was pleased to see a company interested in converting green waste into fuel. "I like the fact it's a green product and doesn't create additional waste that goes back into the landfill," Valadez said. "So we really are seeing something that will take pressure off the landfills. The more of this we see, the better."

But Lyle Talbot, a Lancaster resident and a spokesman for High Desert Citizens Against Pollution, said he plans to appeal the commission's 3-0 decision. If Talbot appeals, the Board of Supervisors will ultimately decide whether to approve the conditional use permit. "I'm disappointed," Talbot said. "I requested they delay the vote and hold a hearing in the Antelope Valley, but they didn't."

William Davis, vice president of project management for BlueFire, said the company expects to begin construction this fall.

170 tons per day

When completed, the plant will convert 170 tons of green and wood waste every day into ethanol, generating 3.2 million gallons a year.

The county has been working to encourage similar projects that reduce waste and cut down on greenhouse gases. The county Department of Public Works has launched a pilot project to build other trash-conversion facilities near other landfills in the region. "Instead of shipping the trash long distances for disposal, we want to develop these new conversion technologies and manage the trash right there on site," said Coby J. Skye, associate civil engineer in the Environmental Programs Division for public works. "What that does is it eliminates truck trips, converts otherwise useless material into usable products and energy and offsets fossil-fuel emissions."

While environmental experts tout ethanol as a potential key to improving the nation's environmental health, some critics believe it could actually cause more damage. A controversial study last year by a Stanford University professor predicted that converting the nation's vehicles to ethanol would cause an additional 200 smog-related deaths in the United States every year - including 120 in the Los Angeles region. Other critics point out that producing corn-based ethanol hikes food prices, uses valuable farming land and uses too many diesel-fueled tractors and fertilizers.

But some environmentalists see ethanol - particularly the kind made from nonfood sources - as a potential greener replacement for gasoline. Ethanol is an alcohol added to gasoline that is supposed to make it burn cleaner. It can be made from corn or - like the Lancaster proposal - from nonfood products such as wood, prairie grass and sugar cane. In 2007, Stanford professor Mark Z. Jacobson concluded that emissions from an ethanol-fueled vehicle's tailpipe would increase the level of organic gases and nitrogen oxide released into the air. Those elements contribute to ozone, a key ingredient in smog. He also predicted an increase in two types of carcinogens, formaldehyde and acetaldehyde, offset by a decrease in two other carcinogens, benzene and butadiene.

Claims challenged

No matter the ethanol source - corn or nonfood - the air-pollution emissions would be the same, Jacobson concluded. "I can say with certainty that it is not improving human health as the ethanol industry has claimed," said Jacobson, a civil and environmental engineering professor. "There are technologies that should be advanced that can improve health, climate and other problems much better than ethanol or gasoline."

Since his study was released last year, Jacobson has been evaluating ethanol and other alternative technologies and their impact on land use and climate. Based on Princeton University research, he said greenhouse-gas emissions could increase up to 50 percent with nonfood ethanol and up to 90percent with corn ethanol.

But Jacobson appears to be in the minority among environmental and government experts. Some believe his study was just flat wrong. The federal Argonne National Laboratory in Illinois determined that corn ethanol produces an average of 20 percent less greenhouse gases than gasoline, while ethanol made from nonfood material produces 86 percent less pollutants, according to Steve Chalk, the Department of Energy's deputy assistant secretary for renewable energy. "Ethanol works," Chalk said. "It works now. It is a viable option now."

Since 2007, the federal Department of Energy has invested more than \$1 billion in biofuel research, development and demonstration. Last year, the California Air Resources Board awarded \$25million for alternative-fuel projects, including ethanol filling stations, startup small biofuels-production facilities and hybrid electric vehicle demonstration projects. "Right now we are very committed to diversifying our fuel sources in order to alleviate the tensions created by market shake-ups and reap the benefits of cleaner power," said CARB spokesman Dimitri Stanich. The board is looking at ethanol and

other alternative fuels as part of Gov. Arnold Schwarzenegger's effort to reduce carbon emissions 10 percent by 2020, Stanich said.

More stations sought

The California Ethanol Vehicle Coalition is pushing for the state to add new filling stations for E85, a fuel made from 85percent ethanol and 15 percent gasoline, said Joe Irvin, the advocacy group's executive director. An estimated 600,000 E85 vehicles zoom around on California highways, Irvin said, but they have very few places to fill up. Nine E85 stations - a mix of retail and fleet - are now open in California, he said. "Ethanol is really good for your engine," Irvin said. "It has such a clean burn because of its high-octane content ... You can run these cars for a million miles potentially."

Mike Lewis, co-owner of Pearson Fuels, has opened two E85 stations in California. His San Diego station sells ethanol for \$3.69 a gallon. When evaluating ethanol, Lewis said, it is important to compare it with gasoline, rather than other possible alternative fuels that aren't in wide use, such as hydrogen, solar or algae. "People like to compare it to some mystery thing that doesn't exist," Lewis said. The company hopes to have eight E85 stations open in California by the end of this year.

Ultimately, experts say, the question of how well ethanol can help the environment may lie with the nation's ability to improve the technologies that produce the fuel. "Ethanol will be what we decide to make it as a society," said Nathanael Greene, director of renewable energy policy for the Natural Resources Defense Council, a national environmental group. "It can be an important part of the solution to global warming or it can be a serious contributor to global warming."

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